

» CLIMATE CHANGE AND ENERGY

CARBON

Challenge:

Reducing carbon emissions and associated costs at WestQuay, Southampton

Assessing the value of sustainability initiatives

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Solution:

In 2009 two projects were introduced at WestQuay shopping centre which are designed to reduce centre energy consumption by around 30%:

- » **Installation of voltage optimisation (VO) equipment on incoming electricity supplies**
- » **Replacement of existing 'T8' fluorescent tubes with more efficient 'T5' alternatives, together with the introduction of a system which allows lights to operate at 10% in low use areas when no-one is present.**

Taking into consideration a 19% increase in opening hours at the shopping centre, the like-for-like year-on-year reduction in energy consumption achieved by the projects was between 31 and 35%, exceeding the original projection. The forecast pay back period for the projects is within three years, based on a combined cost of £510,000 and current energy savings of £184,000 p.a.

Prior to installation, WestQuay would have qualified in its own right under the CRCEES tax scheme, as its annual consumption exceeds 6,000 MWh. However, the savings achieved by the projects means the centre no longer falls under CRC, saving an additional projected £40,000 p.a. in CRCEES. If this tax reduction is factored in, the projects' pay back period is within two years.